Nadara Limited

Millennium East Wind Farm

An extension to Millennium Wind Farm

Technical Appendix 10.1 Outline Construction Traffic Management Plan

664052

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RSK GENERAL NOTES

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1 INTRODUCTION

1.1 Proposed Development

Nadara Limited (hereafter 'the Applicant') is proposing to construct an extension to the operational Millennium Wind Farm within the administrative area of The Highland Council Local Authority (hereafter referred to as 'the Council'). The Site's centre point is at National Grid Reference: E228745, N809613). The Site is located west of Fort Augustus, southwest of Invermoriston, and north of Invergarry.

1.1.1 The Proposed Development infrastructure would include:

- Eight wind turbines of approximately 6.2 MW each, five with a maximum tip height of up to 180 m and three with a maximum tip height of up to 200 m;
- Foundations supporting each wind turbine;
- Onsite distribution sub-station and control building;
- Temporary mobilisation and construction compounds;
- A network of new on-site access tracks and associated watercourse crossings;
- A network of underground cables to connect turbines to a distribution substation;
- Borrow pit extension; and
- Habitat and Biodiversity enhancement measures.

1.2 Purpose and Scope

1.2.1 This Outline Construction Traffic Management Plan (CTMP) provides information to the Council and Transport Scotland (TS) in regard to the management of all the construction traffic related to the Proposed Development, with particular reference to environmental safeguards and mitigation required to address impacts identified in the Environmental Impact Assessment (EIA) Report. **Chapter 10** of the EIA Report has been referenced where relevant.

1.2.2 The purpose of the Outline CTMP is to set out the areas for consideration when preparing the programme of works and when undertaking the Site construction. It would be used during the construction phase of the Proposed Development and updated as necessary, acting as a 'live' document to ensure it is always current. Where the document is updated it will clearly by noted as a variation.

1.3 Key Considerations

1.3.1 This Outline CTMP is the first stage of the requirement to manage and control all related traffic activity during the construction phase of the Development. This Outline CTMP contains the following information in **Table 1.1**.

Table 1.1: Key CTMP Topics

Section	Topic
1	Introduction

Section	Topic
2	Construction
3	Mitigation Measures
4	Complaints and Enquiries Procedure
5	Summary and Closure

1.3.2 The principal mitigation measures that the CTMP will cover may be summarised as follows:

- Methods for accessing the Site;
- Site access improvements;
- Contractor responsibilities;
- Abnormal load management;
- On-site management;
- Adverse weather conditions; and
- Driving and speed restrictions.

2 SITE CONSTRUCTION

2.1 Programme

2.1.1 It is anticipated that the Proposed Development would be constructed over a period of approximately 17 months, summarised in **Table 2.1**.

2.1.2 It is anticipated that construction is likely to begin in Q2 2027. The main construction works will be undertaken during month 7. Construction activities will include:

- Site establishment (construction compounds);
- Limited forestry felling and export;
- Construction of access tracks and crane pads;
- Turbine foundation construction;
- Substation construction;
- Cable delivery and installation;
- Turbine delivery and erection; and
- Reinstatment / restoration.

2.2 Construction Staff

2.2.1 The number of people employed during the construction period would vary depending on the stage of construction and the activities ongoing on Site.

2.2.2 It is anticipated that the peak workforce requirement would be 25 construction staff.

2.3 Hours of Working

2.3.1 The construction working hours for the Proposed Development would be 07:00 to 19:00 Monday to Friday and 08:00 to 13:00 on Saturdays. It should be noted that out of necessity some activity, for example abnormal load deliveries, during large concrete pours and also during the lifting of the turbine rotors, may need to occur outside the specific hours stated, although they would not be undertaken without prior approval from Transport Scotland, the Council, and Police Scotland.

2.4 Construction Access

2.4.1 The entrance to the Proposed Development for vehicles delivering both construction materials and turbine components is proposed from the existing access Millennium Wind Farm off the A887. The existing onsite track network will be reused where possible, with upgraded sections of tracks required to access certain infrastructure locations.

2.4.2 Modification will be required to the existing junction layout to allow abnormal load vehicles to access and egress safely / unobstructed.

2.4.3 New internal access tracks require one new watercourse crossing, as are set out in **Chapter 8** of the EIA Report.

Table 2.1: Construction Programme

Activity & Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Site mobilisation/demobilisation	300																
Construction of construction compounds and access points		960															
Track and hardstanding construction			1901	1901	1901												
Construction of turbine foundations						1044	1044										
Substation construction							911	911	911	911							
Excavating trenches and laying electrical and communications cables									22	22	22	22					
Site restoration													20	32			
Turbine delivery and instillation														80	80		
Turbine fit our and grid connection																17	5
Turbine commissioning																10	
General site traffic	660	660	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	660	660
Monthly ALL total	960	1620	3001	3001	3001	2144	3055	2011	2033	2033	1122	1122	1120	1212	1180	687	665

Activity & Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Daily ALL total	44	74	138	138	138	98	140	92	94	94	52	52	52	56	54	32	32
Monthly HGV total	300	960	1901	1901	1901	1044	1955	911	933	933	22	22	20	112	80	27	5
Daily HGV total	14	44	88	88	88	48	90	42	44	44	2	2	2	6	4	2	2

2.5 Construction Movements

HGV Movements

2.5.1 The maximum level of two-way trip generation would likely occur in month 7 of the 17-month programme, with a maximum of 90 two-way HGV movements per day when material would be imported for construction of turbine foundations and substation construction. The case presented is a worst-case scenario, and an unlikely one, as it is expected that 50% of the required aggregate would be extracted from the on-site borrow pits.

Abnormal Load Movements

2.5.2 Abnormal Indivisible Loads (AILs) associated with the wind turbines will be delivered from the Port of Entry (PoE) at Kyle of Lochalsh or Corpach, depending on the load.

2.5.3 For blades, the proposed access route is as follows:

- Loads would exit Kyle Harbour turning left onto the A87 and continuing over the Skye Bridge to the proposed storage area located at the Skye Aerodrome;
- Loads would exit the Skye Aerodrome and turn left onto the A87;
- Continue on the A87 until the junction with the A887;
- Loads would join the A887 before turning right into the existing Millennium Wind Farm access junction; and
- Loads would then proceed to site via the existing and new private access tracks.

2.5.1 All other loads would use the following route:

- Loads would exit Corpach Harbour via the main gate turning right onto the A830;
- Continue on the A830 for 4.5 km before turning left onto the A82;
- Continue on the A82 to Invergarry;
- At Invergarry, loads would turn left and would join the A87 northbound; and
- At the junction of the A87 and A887, loads would turn right and would then proceed eastbound on the A887 to the site access junction; and
- Loads would then proceed to the Site via the existing and new private access tracks.

2.5.2 This route is shown in **Figure 10.2** of the EIA Report.

LGV Movements

2.5.3 Light vehicle trip generation would be a maximum of 50 two-way movements per day at the peak of construction, although likely to be much less with construction staff car sharing, as single car occupancy was assumed for the assessment.

3 MITIGATION MEASURES

3.1 Contractors

3.1.1 Contractors with experience of the nature of the construction works proposed and of this type of renewable development would be appointed following a tendering process. The Applicant would appoint a suitably qualified and experienced environmental manager who would liaise with the Contractor to ensure that all activities on-site comply with appropriate construction methods, relevant planning conditions and protection of the environment. The environmental manager would act as the first point of contact for any concerns.

3.1.2 All Contractors would be required to supply detailed method statements which would incorporate all planned mitigation methods. All sub-Contractors are required to read, understand and adopt all procedures outlines within the final CTMP.

3.1.3 Sub-Contractors who formulate a CTMP for their work activity must issue it to the Principal Contractor for approval and acceptance prior to Site issue. Any traffic management procedures required to secure a work area or safeguard Sub-Contractor operatives must be co-ordinated with the Principal Contractor (e.g. us of banksmen, operatives carrying out works roadside).

3.1.4 The Principal Contractor's Site Management must be informed of any planned Site activity and movement of Site traffic; the issue of this information must be received within a suitable and agreed timescale to allow co-ordination of other Site activities.

3.2 Road Signs

3.2.1 Any signage required on the public highway would be erected and positioned in accordance with the requirements of the Traffic Signs Manual and Safety at Street Works and Road Works – A Code of Practice, and in consultation with the Council and Transport Scotland.

3.2.2 Any permanent signs and street furniture which are required to be relocated to allow abnormal loads to pass shall be identified in consultation with Transport Scotland, the Council, and through the trial run.

3.2.3 Warning signage on the Site must always be complied with. The two most important signs are "no entry" and "no unauthorised vehicles". In order to proceed beyond these signs, vehicle drivers must stop and contact the ganger / foreman in control of the area to be escorted through the local area.

3.3 Abnormal Indivisible Load Management

3.3.1 Detailed abnormal load delivery traffic management measures would need to be identified and included in the final CTMP (or provided as stand-alone report) setting out the mitigation required to address the potential issues the Abnormal Loads Assessment might identify.

3.3.2 Prior to the movement of abnormal loads, extensive public awareness is required to allow residents to plan and time their journeys to avoid disruption. The haulage Contractor shall

remain responsible for obtaining all necessary permits from the relevant road and bridge authorities along the access route.

3.3.3 The movement of abnormal loads would be timed to avoid periods of heavy traffic flow to minimise disruption to the public. Specific timing restrictions imposed by the police or local authority have not been determined at this stage.

3.3.4 Through urban areas temporary parking restrictions may be necessary to guarantee a clear route for the abnormal loads, and these would need to be arranged in advance through the appropriate local authority. The parking restrictions would need to be locally enforced.

3.3.5 Due to the size of vehicles required to transport these loads, escorts would be required for the entire route to control oncoming and conflicting traffic.

3.4 Adverse Weather Conditions

3.4.1 All works would be forward planned wherever practicable considering the forecast weather conditions. At the start of the day, the Site foreman would assess the weather conditions prior to permitting their operatives to access the Site.

3.4.2 Due to the location and topography of the Site the weather can be severe, resulting in an adverse effect on visibility, and would be constantly monitored and if necessary, all plant / vehicle movements would be stopped / suspended by the Site foreman if they deem it is unsafe for work to continue.

3.4.3 Contractors should contact the Principal Contractors general foreman to find out the situation at the Site prior to arrival to the Site, if required.

3.4.4 An example of how the day-to-day track conditions would be advised to all visitors is via a display board situated at the Site compound and the track condition would be rated as either:

- **Condition Red**: The access track is closed to all vehicular traffic;
- **Condition Amber**: The access track is open to 4x4 vehicles only (operating in full 4x4) and is not suitable for delivery vehicles; and
- **Condition Green**: The main Site access track is considered open to all permitted vehicles.

3.4.5 All Contractors would be required to make their own assessment of track conditions during access or egress from the Site and take appropriate action determined during their assessment. Over the course of the day, and in the event of weather conditions deteriorating, the Principal Contractor would notify the nominated personnel from the Contractors on site to the present condition.

3.4.6 Contractors would be reminded that they have a duty to consider the weather and track conditions throughout the day and take appropriate action to ensure their safety.

3.5 Public Road Wear and Tear

3.5.1 It shall be agreed with the relevant Road Authorities if a pre-commencement survey is required and whether a maintenance schedule is required during the construction phase.

3.5.2 A Section 96 Agreement to cover 'wear and tear' would be discussed with the relevant Road Authorities. If required, this agreement could include the posting of a financial bond to cover the initial construction or when undertaking repairs during the operation phase or at decommissioning.

3.6 On-Site Management

On-Site Safety

3.6.1 All personnel entering the working area would wear hi-visibility vest or jacket, head protection, safety footwear at all times when out with the vehicle.

3.6.2 Everyone required to work within the Site would be made aware that they have a responsibility for the safety of themselves and others. All site operatives and visitors have a "duty of care" to themselves and others and need to be conscious of the surroundings and ongoing activities locally. In the event of an emergency, right of way to all emergency services would always be given. Emergency services and control of access would be carried out in compliance with the site emergency procedures.

Vehicle Parking

3.6.3 Vehicle parking areas located at the Site mobilisation and construction compounds would have safe and secure barriers to segregate all personnel from Site plant and vehicle routes. All signage within designated car parking areas must be followed, with no vehicles parked in a way which restricts either vision or access. No parking whatsoever would be allowed on public roads; all cars that are directed to the Site car park would be required to reverse park to comply with the Applicant and the Principal Contractors requirements.

On-Site Tracks

3.6.4 Access tracks would be monitored daily to identify any deterioration of the track condition. Non-emergency remedial works to the track would be carried out at times outside peak times of usage and significant emergency repairs would be undertaken immediately and adjacent track sections would be restricted from use as required to safely accommodate works.

3.6.5 All routes would be monitored for dust and control, or suppression methods would be deployed as appropriate using dust suppression systems.

Site Traffic

3.6.6 All traffic visiting the Site would be required to report to Site security where they would obtain clear instructions, before further movement is acceptable. If applicable an induction would be completed, vehicle permits would be issued, and the Site rules and emergency procedure would be explained.

3.6.7 All traffic would use the Site passing places and all drivers would accommodate other track users in a courteous manner. Reversing (other than to park) within the compound areas would not be permitted.

3.6.8 Full time Site traffic (vehicles/plant situated on-site for majority of construction phase) that requires re-fuelling would follow the instructions supplied at their induction and also the guidelines within their method statement for the works.

3.6.9 Heavy Site traffic would be equipped with audible reversing warning with additional visual aids e.g. reversing cameras, mirrors utilised on all plant. All safety features must be inspected daily with faults immediately reported to the Foreman Fitter who would assess and repair any damage to the plant. Management would ensure that all loads are covered fully to limit the loss of material in transit.

Vehicle Cleaning

3.6.10 Given the length of the access track to and from the A837, it is likely that most loose materials would not be deposited onto the highway. Should there be evidence of this following the commencement of construction, suitable measures would be implemented within the Site to ensure materials are not transferred onto the highway, and road cleaning would take place if required to remove any deposits that are carried from the Site.

Driving and Speed Restrictions

3.6.11 All vehicles (cars, LGVs, HGVs and AILs) shall always be driven in a safe but defensive driving manner, within posted speed limits. A 3-strikes policy shall be adopted by all Contractors unless any breach is deemed to be of such a serious nature that warrants immediate dismissal from the Site.

3.6.12 All cars and drivers of site operative vehicles used for commuting to and from Site must be road worthy and legally compliant. All commercial vehicles and drivers must be road worthy and legally compliant.

4 COMPLAINTS AND ENQUIRIES PROCEDURE

4.1 General

4.1.1 It is important that members of the public or interested parties can make valid complaints or enquiries about the transport elements of the construction works. Such complaints and enquiries can provide a valuable feedback mechanism which helps reduce potential impacts on sensitive features and would also allow the construction techniques to be refined and improved.

4.1.2 It is anticipated that the complaints and enquiries procedure can be made either directly to the Site Contractor or via the Council and Transport Scotland as applicable, who in turn would provide feedback to the Site Contractor.

4.1.3 All complaints and enquiries would be logged promptly by the Site Contractor and kept on-site for review by the Council upon request.

4.2 Checking and Corrective Action

4.2.1 As outlined above, it is intended for the CTMP to be a 'living document' which is updated periodically as and when required.

4.2.2 The Contractor would be responsible for establishing a programme of monitoring, the results of which shall be fed back for inclusion within the CTMP if necessary.

4.2.3 Any checking or corrective action required would also be monitored. This methodology would ensure that the construction activities are being undertaken in accordance with the CTMP and that the Contractors are held to account.

4.2.4 A procedure for addressing non-conformance/compliance and ensuring that corrective actions are undertaken is outlined below:

- completion of a Non-Conformance Report – this would record any traffic related incident and work that has not been carried out in accordance with the CTMP or Method Statement;
- completion of a Corrective Action Report – this would record any identified deficiency as a result of monitoring, inspection, surveillance and valid complaint; and
- action – any necessary actions identified as a result of the above would be allocated to a responsible person, along with a timescale for the action to be undertaken.

4.2.5 Records of the above would be retained by the Contractor throughout the construction process. The records would be maintained either in hard copy or electronically in such a manner that they are readily identifiable, retrievable and protected against damage, deterioration or loss.

5 SUMMARY AND CLOSURE

5.1.1 The CTMP is a 'live document' and will be regularly reviewed by the Applicant (as appropriate, in conjunction with appointed contractor(s)) prior to and during the construction phase. The CTMP will accordingly be subject to amendment as the project evolves to ensure the most appropriate and effects measures are implemented and, as necessary, approved by The Highland Council.

5.1.2 The CTMP defines proposed traffic management measures to enhance road safety and limit the adverse effects of construction traffic on the local road network and incorporated associated proposals for infrastructure accommodation works.

5.1.3 It is anticipated that once suppliers and contractors are appointed, further relevant information will become available. Such information will be submitted to the Council for perusal and appended to the final CTMP if appropriate.